(C O P Y)

November 21, 1924.

S
Insect Control

The Forester,

Washington, D. C.

Dear Sir:

This letter is our annual report on the insect situation in D-3. According to the statements of the Supervisors the situation is normal with nothing special to report on the Apache, Coronado, Coconino, Datil, Prescott, Tonto and Tusayan. It is of interest that all but the Datil of these are Arizona Forests. Most of the insect attacks, as in former years, appear to be in New Mexico.

CROOK

The Supervisor mentions the defoliation of aspen, cherry, walnut, and oak by tent caterpillars, which are very thick in the Gila Valley outside the Forest where they work on the cottonwoods. From the Gila Valley they have apparently spread both to the Pinal and Mt. Graham Divisions. This is reported to be a characteristic occurrence and apparently no special action is practicable.

SITGREAVES

Considerable turning brown of western yellow pine needles has been noticed on the proposed Deer Springs Unit sale area, particularly between Decker Wash and the Lincoln Ranger Station. Dr. Long states that in his opinion it was caused by plant lice infestation probably of the previous year. The situation may have been accentuated by the extreme drouth condition. It is not believed to be very serious, but further observations will be made.

GILA

A scale attack on pinon pine trees was reported last spring in the Ft. Bayard Nursery pasture. The Bureau of Entomology diagnosed this as a little known insect of considerable interest and asked for further specimens. Our record does not show whether these were furnished, but we will check it up with the Supervisor. It is stated that recent observations on this area do not indicate that the scale is spreading or that mortality in the trees is particularly rapid. The Supervisor has evidently been expecting further information from Washington as to the species and possibility of control. The matter is referred to under separate correspondence. See your letter of May 16.

MANZANO

There are two areas on the Manzano of Dendroctonus infestation, which have been under more or less observation for more than a year. Both were examined a year ago this fall by Mr. Edmonston of the Bureau of Entomology, and his report is the most detailed information we have.

The first area is on the south end of the Sandia Mts. Edmonston indicated that 1,000 trees had been killed during the preceding three years. The ranger estimates that another 100 trees have been killed in 1924. Edmonston's report was not sufficient as a basis for recommendations for control. The Supervisor recommends a further examination by Edmonston this fall. We do not know where Edmonston is at the present time, but I am afraid that weather conditions will prevent it being made before next spring.

The second area is somewhat smaller and in the vicinity of Tajique Ranger Station, where Edmonston found some 200 trees killed. The infestation is reported by the Supervisor to be still active. This is an infestation which seriously threatens valuable timber, although this office has not been informed as to how much timber is thus involved. On the basis of his examination here, Edmonston definitely recommended control measures by cutting and burning or otherwise disposing of infested trees. The estimated cost is $250.00. We request an allotment for this purpose. If you need further information as a basis for action, please inform us as to what is desired.

LINCOLN

You will recall, I think, that a Dendroctonus infestation has been active on the Capitan Mountains for several years. This was investigated last fall by Mr. Edmonston. This beetle was identified as Dendroctonus barberi. It was estimated that 4½ million feet of timber had been killed since 1921. Mr. Edmonston further believed that possibly the attack reached its height in 1922. At his request a strip survey was made last winter followed by a second one on the same strip this summer for comparative purposes. We have not heard from Mr. Edmonston as to his conclusions regarding the report based thereon. It has been concluded by Mr. Edmonston, however, that the conomic inaccessibility of the timber makes worth-while expenditures for control purposes unjustifiable. Apparently, then, there is no special action to be taken as to this attack, except to keep it under observation.

An insect infestation on spruce and fir trees within the Sacramento Watershed was reported by the Supervisor early in September. Specimens were identified by the Bureau of Entomology as a species of Geometridae. A request was made for further specimens, which have been furnished the Bureau. The Supervisor reports that this infestation covers a strip of country from 1/2 to a mile in width and about 4 miles long, although the total area within these boundaries is not all defoliated. The dark or north slopes are uninjured, while the south, southwest, southeast and west slopes have all been defoliated. This infestation appears to this office as a serious one, which may become much worse. We are looking for further information from the Bureau of Entomology as to the practicability and methods of control action. This case is also covered in some detail in separate correspondence, the last being our letter of November 18.

CARSON

This appears to be the worst hit Forest in the District. There are three situations which are worthy of mention.

The first is the spruce bud worm infestation which has been reported at some length in previous years. This is now the third year since it has been epidemic. It has been observed particularly in the Douglas fir type in the region of the Hallack & Howard sale. Whether or not it is prevalent over other divisions of the Forest I do not know. Lumberman Perry, in charge of the Hallack & Howard sale, has given this infestation considerable study. It is his opinion that the situation has not become specially worse during the past year. He believes that it will result inconsiderable mortality among white fir, which might not be so undesirable, and with possibly less among the Douglas fir. So far as we have been able to ascertain there is no practicable means developed for the control of this insect. The parasite mentioned below under the Santa Fe is a new lead, which, I hope, will develop into something worth while.

The second infestation is that of the cone weevil, which has also been reported previously. There is something like 50 or 75 thousand acres of cut-over yellow pine type along the east side of the Amarillo Division which is not reproducing. The area was cut over some thirty years ago. There is a somewhat inadequate supply of seed trees, but very clearly the reason for complete failure to restock is the presence in large quantities of the cone weevil (Conophthorus ponderosae). This is really a very serious problem. We should restock this very large area of western yellow pine type and, if possible, without resort to planting. I think the time has come to take this up with the Bureau of Entomology with a view to a scientific study.

The third is a Dendroctonus infestation in Garapata Canyon on the Taos Division of long standing. I am glad to say that the Supervisor reports that there are prospects of a sale, which will help us to take care of this situation.

SANTA FE

A rather wide-spread spruce budworm infestation was reported during the present year for the first time. The Supervisor, Mr. Preston and I discovered it in the Douglas fir type on the Pecos Division. It is now reported that there is a good deal of it on the Cuba District, which is on the Jemez Division. We have not received any estimate from the Supervisor as to the total acreage involved, but I suspect that the situation as to this insect is as bad as it is on the Carson. It is of interest that the Bureau of Entomology reported that on the specimens furnished them for identification they found specimens of a prasite or scavenger and further material has been sent in, at the request of the Bureau of Entomology, in the hope that this parasite may be propogated for control purposes. It is to be hoped that success will be attained in this attempt. This is, of course, of equal interest in connection with the Carson situation.

Aside from the specific situations described, there are insects more or less common throughout the District, not all of which are worthy of mention here. One, however, the tip moth, is a very serious proposition. While it is much worse in some places, for instance the Sitgreaves, Coconino, Tusayan and certain portions of

those Forests mentioned above, it is more or less general everywhere. In some localities it is very seriously interfering with anything like the proper development of western yellow pine seedlings. I know that efforts are being made to develop a parasite to combat this insect in the sandhills of Nebraska. So far as we have been informed there is no practicable action that can be taken in this District. The needs of the situation, however, should not be lost sight of.

In conclusion, while I have mentioned several infestations which are or threaten to become serious, it does not, as a rule, seem to be practicable at this time to take control measures. The exception to this is the Trajique area on the Manzano for which we have asked for an allotment of $250.00. I repeat here the desirability of a study of the cone weevil infestation on the Carson, and of following up the leads indicated in connection with the spruce bud worm infestation on the Santa Fe and Carson. The only area we know of at present to be examined by Mr. Edmonston the coming year is the Sandia area on the Manzano.

You will recall that successful action was taken some months ago for transferring the field station of the Bureau of Entomology from Tucson to Albuquerque. Mr. Edmonston has thus far been in Albuquerque practically not at all since this was accomplished, but he will no doubt be here more or less this winter, and I am sure that this arrangement will be much more satisfactory to the Forest Service.

I think we are arousing more and more interest on the part of the field force in insect conditions. As a worth-while step in this direction Mr. Rendles has been working on a compilation of information regarding various insects, their work, control measures, etc., which we intend to send to the field.

Very truly yours,

FRANK C.W.POOLER, District Forester,

By (s) R. E. Marsh Acting.